

REMARKS

The Office Action dated March 20, 2008 has been received and carefully noted. The above amendments and the following remarks are being submitted as a full and complete response thereto. Claims 1-46 are pending. By this Amendment, Claims 1-5, 12-13, 20-24 and 27 are amended, and Claims 31-46 have been newly added. Support for the amendments to the claims may be found at least on page 4, lines 20-22, page 14, lines 10-17, page 14, line 29 to page 15, line 1, page 39, line 6 to page 40, line 1, page 41, line 14 to page 42, line 25, and in Figs. 3-7 of the application as originally filed. The Applicant respectfully submits that no new matter is presented herein.

Allowable Subject Matter

The Applicant respectfully acknowledges and appreciates the indication by the Examiner that Claims 5-19 and 24-30 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. § 112, second paragraph. Claims 5, 24 and 27 have been amended responsive to the rejection and should therefore be deemed allowable. Claims 6-19 depend from Claim 5, Claims 25-26 depend from Claim 24, and Claims 28-30 depend from Claim 27. These dependent claims should also be deemed allowable for at least the same reason(s) Claims 5, 24 and 27 are allowable, as well as for the additional subject matter recited therein. As such, Applicants respectfully submit that Claims 5-19 and 24-30 are allowable for the reasons submitted below.

Claim Rejections -- 35 U.S.C. § 112, Second Paragraph

Claims 1-30 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Office Action asserts that “[i]t is improper to try

to compare the changing rates of valve lift and compression ratio because they are different units...“comparing apples to oranges.”” Lift has units of length whereas a ratio has no units.” See Page 2, first paragraph. The Applicant respectfully traverses the rejection for at least the following reason(s).

Responsive to the rejection, Applicant has amended Claims 1-4 and 20-23 to recite that it is *rates of change* of parameters toward desired values that are being compared, rather than a comparison of the *change in rates* between particular parameters. A parameter’s value may increase or decrease over time. The amount of increase or decrease of the parameter’s value may change at varying rates. The comparison of different rates of change at which an individual parameter is increasing or decreasing toward a desired value results in a dimensionless quantity that permits comparison with the dimensionless rate of change of another parameter. Therefore, Applicant submits that the comparisons of dimensionless rates of change of individual parameters toward a desired value are proper and are not a comparison of “apples to oranges,” as asserted by the Office Action.

Furthermore, Applicant has amended Claims 5, 24 and 27 to similarly recite, among other features or steps, controlling an actual measured value of a master parameter to converge to a desired value of the master parameter, based on a requested engine output, and determining a desired value for a slave parameter based on the actual measured value of the controlled master parameter and controlling an actual measured value of the slave parameter to converge to the desired value of the slave parameter thus determined. As such, Applicant respectfully submits that Claims 5, 24 and 27 do not recite changing rates as asserted by the Office Action.

Accordingly, Applicant respectfully requests withdrawal of the rejection.

Claim Rejection -- 35 U.S.C. § 102

Claims 1-4 and 20-23 are rejected under 35 U.S.C. § 102(b) as being anticipated by Japanese Patent Application No. 2001-263099 ("JP '099"). To the extent that the rejection remains applicable to the claims as currently amended, Applicant respectfully traverses the rejection for at least the following reason(s).

JP '099 discloses a controller for an internal combustion engine to avoid interference between a piston and an intake valve. The compression ratio is controlled variably by changing a support position of a control link. The intake valve is controlled by advancing a closing timing thereof with respect to a bottom dead center.

The Applicant respectfully submits that JP '099 does not disclose or suggest that the controller is configured to control the variable lift mechanism and the variable compression ratio mechanism so that the rate of change of the compression ratio toward a desired value is faster than a rate of change of the lift amount toward a desired value when a requested engine output is increasing, as recited by Claims 1 and 20. Furthermore, JP '099 does not disclose or suggest that the controller is configured to control the variable lift and the variable compression ratio mechanism so that a rate of change of the lift amount toward a desired value is faster than a rate of change of the compression ratio toward a desired value when a requested engine output is decreasing, as recited by Claims 3 and 22. Moreover, JP '099 does not disclose or suggest a variable phase mechanism as recited by Claims 2, 4, 21 and 23.

To qualify as prior art under 35 U.S.C. § 102, each and every feature recited in a rejected claim must be disclosed by the applied art. For at least the reasons provided

above, Applicant submits that JP '099 does not disclose or suggest each and every one of the features recited in Claims 1-4 and 20-23. Accordingly, JP '099 does not anticipate, nor render obvious, Claims 1-4 and 20-23. Therefore, Applicant submits that Claims 1-4 and 20-23 are allowable over JP '099.

Applicant respectfully requests withdrawal of the rejection.

New Claims 31-46

Applicant respectfully submits that Claims 31-46 are allowable for at least the same reasons Claims 1-30 are allowable, as well as for the additional subject matter recited therein.

Conclusion

In view of the above, the Applicant respectfully requests withdrawal of the outstanding rejections, allowance of Claims 1-46, and the prompt issuance of a Notice of Allowability.

Should the Examiner believe anything further is desirable in order to place this application in better condition for allowance, the Examiner is requested to contact the undersigned at the telephone number listed below.

In the event this paper is not considered to be timely filed, the Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension, together with any additional fees that may be due with respect to this paper, may be charged to counsel's Deposit Account No. 01-2300, **referencing docket number 108426-00070**.

Respectfully submitted,
ARENT FOX LLP



William D. Doyle
Attorney for Applicants
Registration No. 60,429

Customer No. 004372
ARENT FOX LLP
1050 Connecticut Avenue, N.W., Suite 400
Washington, D.C. 20036-5339
Tel: (202) 857-6000
Fax: (202) 857-6395
WDD/elp
Enclosure: Extra Claims Fee Transmittal